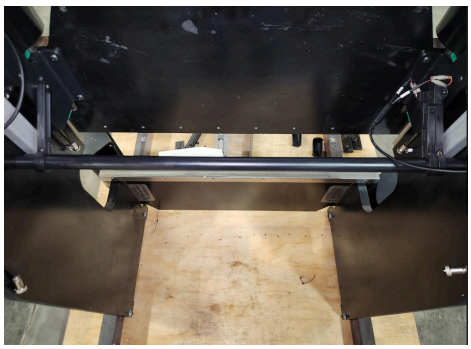
# Anti-Bind Troubleshooting

The purpose of the Anti-Bind limit switches is to prevent the punch from moving out of alignment, however there are potential issues with the anti-bind system if not adjusted properly that can cause false anti-bind limit triggers.



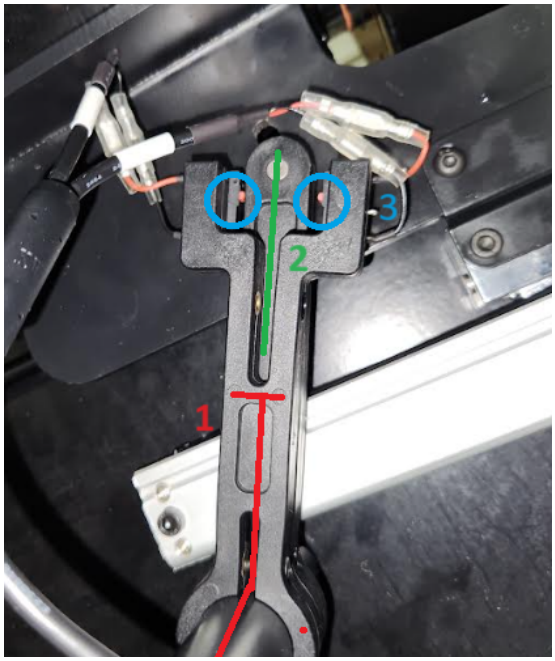
*The Anti-bind System can be seen from the back side of the machine.*

## ANTI-BIND SYSTEM OVERVIEW

The Anti-Bind System has three main parts. Note: looking from the back of the machine, the Left hand parts are to the right.

1. The **Anti-Bind Switch Tube**, the **Switch Mount Arm**, and the **Right Hand Pivot Arm**. These three sub-components must be connected firmly so that they move together when the **Right-Hand Gas Spring Mount** moves and forces the **Right-Hand Pivot Arm** up or down.
2. The **Left Hand Pivot Arm** which is free to move on the **Anti-Bind Switch Tube**, and is moved by the motion of the **Left-Hand Gas Spring Mount.**
3. **Limit Switches** and **Antibind Limit Switch Cables** are mounted here so that when the Two Hydraulic Ram Mount Brackets move out of alignment, the limit switches are triggered.

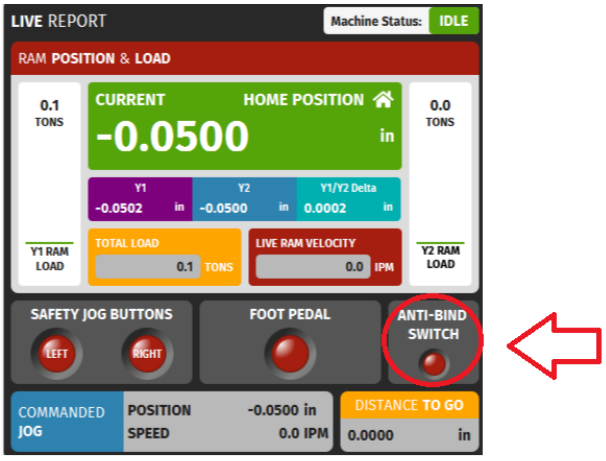

*Looking from the back, the LH Pivot arm and LH Gas Spring Mount are on the right.*




*When (1) and (2) move out of alignment, the limit switches (3) are triggered.*

## ANTI-BIND SYSTEM INDICATORS

The Anti-Bind Switch Status on the touchscreen should be red during normal operation indicating the anti-bind switch cable is plugged into the machine and the Anti-Bind Limit switches have not been activated.




*If the Anti-Bind indicator is Green, then limit switches have been triggered or the anti-bind cable has been unplugged from the back of the machine.*

If the Anti-Bind system has triggered properly, it likely is indicating that the table is overloaded on one side. Check the setup of your punches and dies to ensure that the load of your bend is

distributed evenly between both hydraulic rams. If the bend is beginning during the (preset to 3 seconds) **Clamp Material** stage of the bend cycle, then the issue is likely in your height inputs on either your punch, your die, your material thickness, or your 'ram-to-table opening' setting. Double check that your specifications on your programmed bend are correct.

Alternatively it might indicate a table leveling misalignment - if you are seeing an Anti-Bind Error message alongside a Max Tonnage error, the table might need to be re-levelled - ask for support on measuring your machine's ram-table gap and leveling your table.

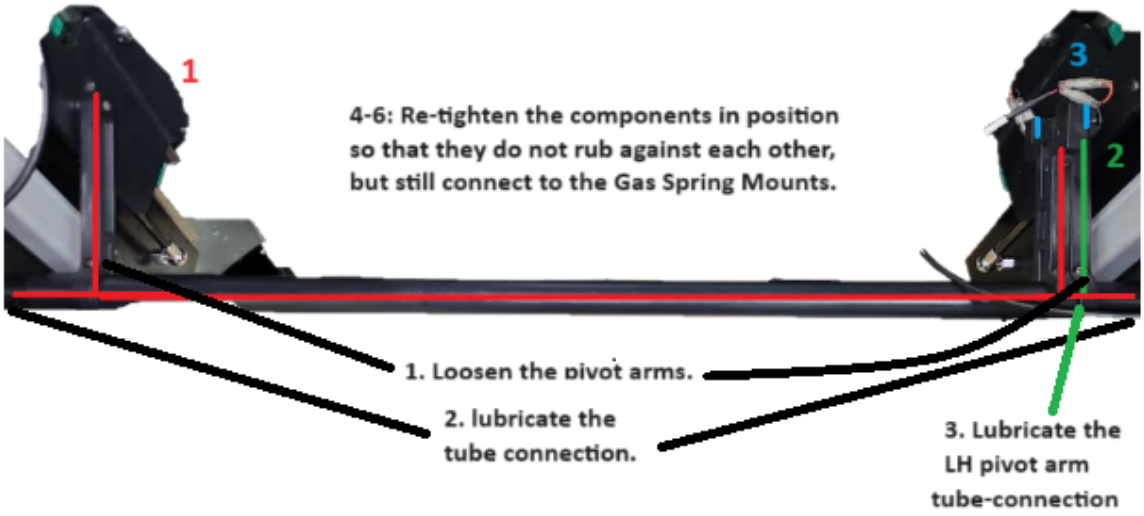
If you are **not** seeing a max tonnage error, then the issue might be with the Anti-Bind system itself. Check the connection on the Anti-Bind cable and make sure the Status on the touchscreen shows red in a default configuration.

If the cable connection is secure and the machine is still showing a Green (triggered) anti-bind status in a default position, then you may need to adjust the bolts in your anti-bind system to ensure it is functioning correctly.

## ANTI-BIND SYSTEM FUNCTIONALITY TUNEUP

To ensure the anti-bind system is fully functional, the following steps can be taken.

1. To begin, Loosen the hex bolts holding the LH and RH Pivot arms to the Anti-Bind Switch Tube.
2. The **Anti-Bind Switch Tube** must be able to spin within the uprights. To ensure smooth functionality, some lubrication can be applied to the tube where it is mounted within the uprights.
3. The **LH Pivot Arm** must be loose enough to not move with much force when the Anti-Bind Switch tube moves. Lubricant can be applied to the connection here to ensure the arm is not too stiffly connected to the **Anti-Bind Switch Tube**.
4. The **LH Pivot Arm** must be positioned so it does not rub against either the **LH Gas Spring Mount**, or the **Switch Mount Arm**. It must remain close enough to both such that the pin at its tip is still actuated by the movement of the **Gas Spring Mount,** and so the arm itself can trigger the limit switches connected to the **Switch Mount Arm.**
5. The **RH Pivot Arm** must be positioned so it does not rub against the **RH Gas Spring Mount.** It must remain close enough to both such that the pin at its tip is still actuated by the movement of the **Gas Spring Mount.**
6. The two arms (**RH Pivot Arm** and **Switch Mount Arm**)connected to the **Anti-Bind Switch Tube** must be secured tightly using the hex bolt at their base.


1
3
2
4-6: Re-tighten the components in position so that they do not rub against each other, but still connect to the Gas Spring Mounts.
1. Loosen the pivot arms.
2. lubricate the tube connection.
3. Lubricate the LH pivot arm tube-connection